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AGRICULTURE &  
RURAL ADVISORY  
SERVICES STUDY



Summary of Public  
Consultations to  
Examine Core  
Advisory Services of  
the Ontario Ministry  
of Agriculture, Food  
and Rural Affairs



# Ontario Agriculture and Rural Advisory Services Study

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# **Ontario Agriculture and Rural Advisory Services Study**

## **Final Report**

**Terry Daynard and Frank Ingratta**

March 31, 1997

### **Introduction**

We were commissioned in November 1996 to make recommendations on how field/advisory services of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) might be altered to best meet the needs of rural and agricultural sectors of Ontario in the decade ahead.

The study was initiated for several reasons. These included: (1) a view that with new communication technology, Ontario agriculture is becoming fully global in its quest for new information, thereby necessitating changes in the means and speed by which technology transfer occurs, and (2) recognition of the fact that the ministry is now fully committed to rural as well as agri-food leadership development and support.

The study was completed on the premise that total resources available for agricultural and rural services, through the budget of the Agriculture and Rural Division (ARD) of OMAFRA, would remain at present levels - but that all options were open for the effective use of these resources.

The process involved six types of consultations: (1) meetings with agricultural and rural organizations; (2) meetings with individuals in Ontario agriculture and others in rural Ontario; (3) meetings with ARD and other OMAFRA staff; (4) meetings with the Ontario Agricultural Training Institute (OATI), faculty members of the University of Guelph, and senior officials of AgriCorp; (5) visits with staff involved in agricultural and rural extension, and with farmers and rural clients in several other Canadian provinces and American states; and (6) correspondence with officials involved in agricultural and rural extension in other provinces, American states, and other countries. In addition, a literature review of extension processes in other countries was completed by Ms. Brita Ball, Rural Community Advisor, OMAFRA, Simcoe.

This report consists of three sections - general comments, recommendations, and concluding comments. Appended to the report are: (1) a brief discussion paper distributed to all groups and individuals prior to consultation meetings; (2) a list of consultation meetings; (3) summaries of information collected during consultations with jurisdictions outside Ontario; (4) three international reports of interest; and (5) the literature review completed by Ms. Ball.

### **General Comments**

There are good reasons to continue to offer agriculture and rural advisory services through the Ontario Ministry of Agriculture, Food and Rural Affairs. The reasons include: (1) the need to provide a source of information and advice which is not associated with commercial

interests; (2) the need to provide leadership training and to facilitate rural endeavours; (3) the reality that similar services are provided by federal and/or provincial governments in most other jurisdictions with whom those in Ontario agriculture must compete internationally; (4) limited success in certain other countries with attempts to privatize all agricultural extension services, or place them on a full (or near-full) cost recovery basis; and (5) the fact that agricultural and rural advisory services are recognized as a "World Trade Organization (WTO)-green" means of enhancing agricultural and industrial competitiveness.

One size does not fit all in the delivery of OMAFRA agricultural and advisory services. While consideration must be given to the desirability of providing comparable service to different agricultural or rural sectors, the delivery system must allow for substantial variation in the way in which these services can be provided. This is true across commodity sectors, as well as across regions of the province.

The field system needed for delivering rural advisory services is not identical to that required to address agricultural issues. "Local" generally has a different connotation for rural issues, as compared to agricultural ones. Although the number of farms may be relatively small in some parts of Ontario, the rural population can be quite large. However, there is far more to be gained by maintaining the present close coordination between agricultural and rural functions, than by separating them into separate administrative units at a senior level.

Good opportunities exist for greater cooperative activity with other ministries, municipal governments, agricultural and rural organizations, private business, and other provinces or states.

The present OMAFRA system needs strengthening in its ability to provide expert, state-of-current-knowledge information and advice in various areas of agricultural technology.

The Internet will play an increasingly dominant role in communications and information transfer in rural Ontario and global agriculture. OMAFRA must take full advantage of this new, powerful technology.

The questions of "who is the client," and "what degree of individualized service should be provided," were raised by many of those with whom we consulted. We consider it difficult, if not impossible, to answer these questions by designations such as scale of agricultural and economic output, experience, uniqueness, need, and other suggested criteria. We believe that the judgment must be made at all levels, on the basis of an assessment (normally intuitive, but more formal for larger projects) of the relative extent to which the contemplated activity will contribute to the well-being and sustainability of the agri-food industry and rural communities within the province.

We are impressed with the overall level of commitment and sense of responsibility for agriculture and rural Ontario which exists among agricultural and rural extension staff within OMAFRA. This is despite the frustration which exists over the sizable reduction in government funding for agricultural and rural extension, and in number of staff members which has occurred over the past year.



No attempt has been made to ensure that all recommendations made below are consistent with present provincial government policy. Our recommendations are based on our common view of what should be changed, or retained, to provide for a more effective agricultural and rural extension service in Ontario, using the existing level of public financial support. The position of Frank Ingratta during the study was that of a semi-independent consultant, rather than a ministry employee. Even though backup support was provided throughout the study by other ministry staff, and the ministry funded all salary and operating costs associated with this endeavour, the recommendations come solely from Daynard and Ingratta. No endorsement from OMAFRA exists, nor is this implied.

No attempt has been made in the following recommendations to address all advisory activities of the Agricultural and Rural Division of OMAFRA. This is especially true for those activities which are considered to be functioning in a satisfactory manner. This includes activities such as the Master Gardener and Community Food Advisors programs, designed to seek rural improvement through the actions of volunteers.

## Recommendations

Based on advice received during consultations within the province, and information collected from other jurisdictions, we make recommendations and comments as outlined below. The order in which items are listed has been chosen to facilitate a smooth flow of presentation and understanding. There is no implied ranking by priority.

Although good opportunities exist for improved partnership relationships between OMAFRA and other public and private organizations in the delivery of agricultural and rural extension services, and there are possibilities for privatizing some extension functions, **we recommend that there be no substantive effort to privatize agricultural and rural extension services now provided by OMAFRA, nor to attempt to have a high percentage of delivery costs funded on a fee-for-service basis.**

We see no advantage in large-scale privatization of OMAFRA agricultural and rural advisory services. This option was strongly rejected by most of those with whom we consulted, and those with whom we met in other provinces and states. A major attempt to privatize government-provided agricultural extension services in the Netherlands is considered to have been a failure, with the result being widespread confusion and a reduction in the overall quality of extension service in that country. Similar attempts at privatization or near-full cost recovery in New Zealand, Tasmania and Great Britain have also achieved less-than-desirable results. Full, or near-full commercialization, whether publicly owned or private, has resulted in emphasis on profitability rather than public good, major neglect of key service needs, and a marked reduction in extent of communication and cooperation among those involved in service delivery. There is no significant effort being made to privatize agricultural extension services in the United States, despite the widespread availability of private advisory services in that country. The “bread and butter” source of income for many of those involved in private extension services in the U.S. seems to come from the provision of management/operational services, rather than advisory services.

**We recommend that OMAFRA retain at least the same number of field offices as at present.** This is especially true for rural advisory services. If rural community advisors (RCA) are to be effective in providing leadership, training and facilitation at the local level, then a local presence is needed. **The core unit at each office should be an RCA and an office administrator.** The role of the RCA is to provide leadership training, facilitate community action on various initiatives, help resolve community disputes, and assist in the development of new economic ventures. With few exceptions (such as 4H, see below), RCAs should see their role as project-oriented, in addressing specific initiatives. Over the next year or two, some RCAs may be required to spend a significant amount of time helping municipalities with restructuring, but over the longer term, their primary role will be community and economic development. RCAs should represent the normal first contact for the ministry on most local rural issues.

Effective office administrators represent good value-for-the-money because of their ability to answer a large percentage of routine requests for information, and to direct other queries to other ministry staff. Automatic answering machines are poor substitutes during normal business hours. **Office administrators should receive regular training on “who does what” within the ministry and elsewhere in government, and on the ability to access information electronically.** The latter will become increasingly important as a source of information for clients.

**Agricultural advisors (currently agriculture and rural representatives) should also be located at a majority of the field offices. In some cases, an agricultural advisor might be assigned to two field offices, and, where distances between offices are very large, the role of the RCA and the agricultural advisor should be combined.** The role of agricultural advisors is to provide information and advice on normal agricultural activities, and to seek input from regional specialists or provincial experts (see below), where required. Agricultural advisors should represent the first contact for the ministry on most individual farm issues. Their primary function should be technology transfer, and not assistance in the completion of government forms.

**There is no need to have every basic field office unit (i.e., RCA, office administrator, agricultural advisor) located in an OMAFRA stand-alone building and/or office facility. There would be advantages in locating this staff in municipal buildings in many areas.** This arrangement could be especially beneficial for the activities of RCAs, but could also ensure that OMAFRA agricultural advisors work closely with municipalities in subject areas such as agricultural land use and the development and implementation of municipal policies which influence agriculture and food. Many county-agent offices in the United States are in county buildings. Co-location with other provincial ministries is a second choice. Either option should represent opportunity for cost savings, shared boardrooms, and improved communication with others involved in public service outside OMAFRA. We note that while local counties pay a major share of the cost of delivering agricultural (and, sometimes rural) extension services at the local level in many (perhaps all) American states, we don't see this as an acceptable option in Ontario, at this time.

At the provincial level, **major restructuring is needed to ensure that the province has a substantial contingent of agricultural “experts” in various areas.** These individuals should



have expertise, recognized both within the province and externally, for their understanding of state-of-the-art technology, and for their ability to transfer this information and to respond to associated requests for information and advice. **These experts should have advanced academic training appropriate to the positions (Ph. Ds for some positions) and be compensated at a level equivalent to comparably trained agricultural public researchers in the province.** Their area of expertise should be commodity specific (e.g., corn, hog, apple, turf management, etc.), or by discipline (e.g., field crop diseases, ruminant nutrition, soil fertility, greenhouse design, crop marketing, manure management, building ventilation, etc.). They should be familiar with relevant scientific literature and current research activity, both in Canada, and internationally. They should be expected to travel outside the province often, and to have good contacts globally.

**In general, these experts should be located in the same buildings as researchers** (ideally adjacent offices) at one of the campuses of the University of Guelph (Ridgetown, Guelph, Simcoe, Vineland, Bradford, Kemptville, Alfred, New Liskeard). This arrangement facilitates the informal exchange of information and ideas - of value to both extension personnel and researchers. Merely being located in the same town/city, or on the same campus, is not sufficient. (They must share the same common coffee room.)

These experts could also be located at research stations of Agriculture and Agri-Food Canada where these stations provide a strong research base pertinent to the area(s) of expertise of the OMAFRA extension expert(s).

**The primary responsibility of these experts should be to channel information to, and to respond to requests for information and advice from, OMAFRA advisors and regional specialists, and others involved in information transfer at the local level (e.g., private consultants, input suppliers, agricultural media).** Experts should play a major role in training and re-education of public and private extension personnel. There should also be a large amount of contact between experts and the agricultural community, through workshops, speaking engagements, visits to/with leading-edge agriculturists, media releases, and use of the Internet (see below).

We would see most of these experts, at least initially, being employees of OMAFRA. However, **we recommend that there be considerable flexibility in the manner of employing and funding agricultural extension experts. Several pilot ventures should be initiated. One of these could involve partnerships (presumably co-funded) with agricultural and rural organizations.** These partnerships could involve farm commodity groups, other agribusiness associations, or rural groups.

**We also recommend that a few partnerships be created with the University of Guelph, as pilot projects, where the extension experts are faculty members.** This arrangement is the norm at most (if not all) "land grant" agricultural universities in the United States.

Senior University of Guelph officials have indicated recently that the university is now interested in playing a greater role in agricultural technology transfer. Observations of U.S.

experience indicate that the location of agricultural experts in a university faculty has many advantages. We believe that a few pilot positions, included as part of a revised OMAFRA-University of Guelph contract, would serve as a test of the university's ability to manage such a relationship. These pilots might work best where a portion of the core funding is provided by third parties, such as farm commodity organizations. A key test measure would be the extent to which extension faculty members are rewarded for their expertise and achievement within the university "promotion and tenure" system, relative to those involved in more traditional academic activities such as teaching, research and administration. OMAFRA-University of Guelph extension experts might be expected to spend a small percentage of their time on research, in some cases; however, a joint extension-teaching appointment presents potential time-conflict difficulties.

It is not financially possible for OMAFRA to employ, or fund, experts in all areas of agricultural endeavour, especially for minor commodities. In this case, "experts" may be required to service several commodities. In some cases, no provincial expertise can be justified. **The option should be pursued for a sharing of agricultural experts with adjacent states or provinces (especially New York, Michigan, Quebec and Manitoba) for some of these commodities - with Ontario agreeing to provide service to other partner jurisdictions for some areas of agriculture, and vice versa.** We understand that such formal arrangements now exist among some American states.

**The OMAFRA initiative in the area of business specialists is welcomed, and should be expanded. These specialists should have advanced education in business.** In some cases, these individuals would be best categorized as "experts," as defined above. These specialists have been effective in guiding the establishment of new rural businesses and industries, on a project basis. Their role is to help initiate and nurture, during the initial stages of development, and then move on to other projects. Their mandate should be provincial, with them being located at Guelph and/or at a small number of regional centres across the province.

Normally the network of rural community advisors, agricultural advisors and well-trained office support at the local level, and experts and business specialists at the provincial level, should be the basic foundation for agricultural and rural service delivery by OMAFRA in the province. However, **a contingent of regional specialists is needed for areas of expertise where the demand for services and information is very large (thousands of farmers or other clients), or for which across-province variability is large.** Examples of the former include major commodities such as dairy, beef, hogs and field crops. Examples of the latter include soil and climatic variability. The fiscal tradeoff between number of provincial experts per subject area (for example, experts on breeding, nutrition, housing, health), versus number of regional specialists should be made on a commodity-by-commodity basis. The same applies to breadth or specificity of regional specialists. For example, regional specialists covering all field crops, with perhaps only one provincial expert on a crop-specific basis (plus other provincial experts by discipline areas such as diseases, soil fertility, etc.), probably makes more sense for field crops. Regional specialist responsibility by single commodity probably makes more sense for dairy, beef and pork. Examples of regional specialists in the rural area could include specialists in land use planning, municipal governance, rural infrastructure, and 4H.



These regional specialists should provide backup to agricultural and rural community advisors at the local level, where such cannot be provided by provincial experts because of the local specificity of the problem(s), insufficient time, or large distances to travel. Their emphasis should be on problem solving, demonstrations, and on communication at the local level. They should meet regularly, ideally on a one-on-one basis as well in more formal sessions, with provincial experts, for a two-way exchange of ideas and information.

It is important that regional specialists be viewed as complementary, rather than as competition to, private consultants. In some cases - e.g., accounting, poultry feed formulation - private services may be sufficient to eliminate the need for OMAFRA specialists at the regional level. In other situations such as crop fertilization and pest management, private advisors and input suppliers provide much of the advice used by farmers in normal management decisions, but OMAFRA regional specialists are used as an “independent” source of advice, and also as advisors and a source of backup expertise for the private sector.

A close working relationship is also essential, on an individual basis, between provincial experts and regional specialists.

There is an advantage in locating regional specialists at regional OMAFRA centres/offices, where they can consult with each other and share resources which may not be available at local field offices. However, this should not be interpreted rigidly; there can be compelling reasons for locating certain regional specialists in other smaller field office - e.g., unique farm commodity or rural situations; access to non-OMAFRA expertise, etc.

**Efforts should be made to improve the education level of all OMAFRA advisors, specialists, and experts.** This can be done by including advanced training as an important (though not absolute) criterion in the hiring process, and, also, by making provisions for staff to seek further education and formal training after the date of their employment.

**4H must continue to be an important responsibility of OMAFRA.** Recent actions by the ministry designed to shift more responsibility for management of 4H to volunteers at the local and provincial level make sense. However, it is obvious that 4H may not survive in many counties/regions/districts without the helping hand of OMAFRA staff in training leaders, sustaining volunteers, and providing quality club program material. We recommend that service to 4H be identified as a designated client group of RCAs. In addition, **regional 4H specialists should be appointed.** Particular attention should be given to those aspects of 4H programs designed to develop leadership and encourage good citizenship. The mandate should include all of the rural community, and not just agriculture. While 4H specialists are located regionally, they should be prepared to help guide and support 4H activity at the local level, as is the case with other specialists.

**RCAs, agricultural advisors, regional specialists, local and regional office administrators and other regional support staff, should report to regional field managers, as is the current practice. Agriculture and business experts should report provincially.**

**While we've heard lots of advice on the need to reduce the size of the OMAFRA "head office" staff at Guelph, there are important limits to the extent to which this can be done.** Coordinators at Guelph spend substantial amounts of time preparing reports and other information required by senior levels of government, in a process which can be defined as "accountability." A 1996 report by the Provincial Auditor on functions of the Agricultural Division of OMAFRA (now Agriculture and Rural Division) states that the amount of internal reporting needs to be increased. In addition to those at the assistant deputy minister and director level within the division, there needs to be sufficient staff to meet this need, and to provide coordination where needed (for example, meetings, in-service training) in subject-specific areas. Coordination is also needed with some agricultural and rural groups at the provincial level.

Regional field managers can also play a role in helping with internal reporting requirements. **It is important that the paperwork burden be minimized for RCAs, agricultural advisors, regional and business specialists and provincial experts. Their time should be devoted to service to clients.**

Much of the success of OMAFRA advisors, specialists, and experts depends on personal trust and local confidence. This is usually a function of time and experience. **The system should be designed to ensure that individuals remain in one position and location for extended periods of time (recognizing that some relocation may be needed for personal and other special reasons). The reward system must be such that personnel in the field do not feel compelled to move to "head office" and/or into administration just to "get ahead."** In addition, the present OMAFRA system, in which temporary assignments and/or vacancies are often filled by numerous lateral or vertical shifts in responsibilities, is problematic. The result of these frequent shifts is that clients in the farm and rural community are never sure who is available to do what.

**Coordination at the expert level might largely be done on a collegial basis, by the experts themselves. However, staff support is required, and budget and performance need to be managed at a senior level.**

Because of the constraint in funding and staffing which occurred for/in the Agriculture and Rural Division of OMAFRA in 1996/97, and the expanded rural mandate, OMAFRA is unable to provide routine on-farm service to nearly the same extent as was formerly the case. Without major new additional funding we do not see how this situation can be altered. The private sector already fills this void to some degree. **OMAFRA resources, to the extent available for on-on-one consultation, should be concentrated on areas which are least likely to be filled by the commercial sector (example, environment) and where the potential for broad benefit to the entire agricultural industry is greatest.** Because of resource constraints, OMAFRA will be unable to provide one-to-one service to all potential clients. Priorities as to when an on-farm visit is merited for OMAFRA extension staff need to be based on potential for overall public benefit.

Fee-for-service was proposed during some consultation sessions as a means of identifying those situations where extended consultation could be justified. The theory is that those who value the service most will pay. However, we do not see how this could be implemented in an



effective manner, especially if ability to attract fee-paying clients became a criterion for performance evaluation, as would almost certainly happen. The problems include: (1) the fact that many OMAFRA services, for example those relating to environmental quality and conservation, are judged to be of overall value to the community and society, rather than individuals per se; (2) those willing to pay may not be the same as those who offer the greatest potential for benefit to the agricultural industry or rural community (examples of the latter include innovators and young people); and (3) the private sector is already positioned to offer individualized consultative services, on a fee-for-service basis, for many sectors of agricultural and rural development.

**OMAFRA specialists and experts should be prepared to provide backup expertise to private consultants who do provide regular one-on-one advice to agricultural and rural clients.** Indeed, this backup support is an excellent means of extending the expertise of OMAFRA staff to larger numbers of farm and rural people. Conversely, OMAFRA extension staff should call on the expertise of private consultants in identifying new problem areas and opportunities.

Private extension consultants, individual farmers, and farm organizations have identified the “benchmark” financial and production data which OMAFRA collects on representative Ontario farms, as being of special value.

Additional one-on-one service can be provided by OMAFRA when the private sector, or a nonprofit entity such as a farm commodity group, is willing to augment OMAFRA services. This augmentation involves funding the employment of additional staff, ideally to be located in OMAFRA offices and work in coordination with OMAFRA field staff.

Another option involves management and/or technology clubs which may wish to employ their own extension agent. OMAFRA should provide backup, technical support, in a manner generally equivalent to the service provided through private consultants, input suppliers, etc.

AgriCorp may wish to become involved in the delivery of specialized extension services to farmers, on a full-cost-recovery basis.

**There are opportunities for cost recovery.** Fees could be charged, at least to cover printing and distribution costs, for written publications and other specialized materials such as computing software, CD-ROMs, etc. Comparable fees are now being charged in Quebec and some adjacent states.

Fees can also be charged, sufficient to cover non-fixed costs and perhaps a portion of overhead, for training courses and workshops, speaking programs, etc. The success of the 1997 Southwest Ag Conference, which attracted more than 1600 participants despite an entry fee of \$35 per person, shows that if an OMAFRA-developed program is well designed, well targeted, and well advertised, farmers and other rural residents will pay to attend.

By contrast, with rare exception, **we do not recommend that OMAFRA attempt to charge for information placed on the World Wide Web (WWW), or otherwise distributed**

**by the Internet.** The WWW is a seamless source of information, with a lot of quality information on agriculture and rural development being provided at no charge by many sources. Cost recovery, where it occurs, is usually achieved through advertising on web pages. The Ministère de l'Agriculture, des Pêcheries et de l'Alimentation in Quebec is attempting to charge for information distributed this way, but this approach can only succeed if rural Quebecois judge that this is the only good source for North American material written in French. Any attempt by OMAFRA to charge for material provided in English would mean that it would be largely ignored by Internet users, and the same policy must apply for OMAFRA Internet material provided in French. Purdue University has a policy of charging for written publications but providing the same information free on the Internet. Those responsible consider that it is still less costly for them to provide information free on the WWW, than to print, distribute and charge for publications. We agree with this approach.

**Substantial changes are needed in the OMAFRA approach to use of the Internet, at least in the realm of agricultural and rural technology and information transfer.** The system must be designed to utilize the speed and flexibility of this technology, and the ease with which users can move instantly from information on an OMAFRA web page, to a web site in Australia (for example), and back again. The OMAFRA World Wide Web (WWW) site should: (1) provide a publicly available source of information available from Ontario sources; (2) provide linkages to quality information available globally on the net pertinent to specific areas of agricultural technology and rural development; (3) provide a thorough, up-to-date source of statistics on rural Ontario and Ontario agriculture; and (4) provide timely information and advice on issues as they arise. Automated, moderated E-mail services (e.g., Listserv and/or Majordomo) should be used to send information pertinent to item (4) above to extension personnel, both public and private, farm and rural media, and to everyone else who wishes to subscribe - on an "as it happens" basis. Automated E-mail services can also alert subscribers when new information relative to items (1) to (3) above is added to the net. Note that these E-mail services should not be overused - items should be pertinent to the needs of clients, and messages should be short. Lengthy material should be made available as WWW pages.

In order to achieve the above in a time-responsive manner, while preserving a corporate identity for OMAFRA on the WWW, **we recommend that the existing OMAFRA web page structure, or something similar, be retained, but that near-full responsibility for information provided in web pages below some introductory level** (for example, the general link to "soybeans," or "beef" or "rural development") **be given to the OMAFRA experts or otherwise specified individuals.** The process for securing extended approval needs to be minimized. To address the liability problem for OMAFRA, disclaimers should be placed at the top, or in a prominent position, on each web page. Experts, and their supporting staff, should be trained to place web pages on the OMAFRA web site directly, with specialized OMAFRA staff being available to assist with technical problems. Experts should also be encouraged to provide web links to quality information provided by non-OMAFRA sources, and to consider the updating and enhancement of web information as a priority. Regional specialists should also be able to place information on the web, with the approval of an OMAFRA expert (if the information relates to the latter's area of expertise) or a field manager. Advisors should have the same opportunity with the approval of field managers. Office support staff should be well-trained in use of the Internet, which is likely to be a dominant source of information used to



respond to many requests from clients. If clients need printouts of Internet information, these could be provided on a cost-recovery basis.

Access to the Internet continues to be a problem for many rural residents who do not have private line service. This needs to be addressed as a priority, though it is not clear the extent to which this problem can be corrected by activities of OMAFRA extension staff.

**OMAFRA experts should cooperate closely with their counterparts in adjacent provinces and states in assessing what information needs to be placed on the web by OMAFRA.** If competent information is available from Michigan, for example, there is no reason to provide the same service by OMAFRA. A link on pertinent OMAFRA pages, to the Michigan information, will suffice. Conversely, there may be opportunities for OMAFRA to place information on the web pertinent to Michigan as well as Ontario. Should an adjacent state or province insist on “going it alone” on all subjects, OMAFRA experts should be quick to exploit such generosity where the quality of the information is good.

OMAFRA extension staff should not become involved in regulatory enforcement, i.e., they should not be policemen. One of their greatest assets in rural Ontario is that they are not considered to be enforcers, unlike many other government personnel in rural areas of the province. It is recognized however, that OMAFRA extension staff may be obliged to initiate regulatory responses by others in government, if they are aware of blatant violations of provincial or federal statutes and regulations. For reasons of ministry cost effectiveness, there may be occasions when extension staff is used to perform specific OMAFRA regulatory functions. Where this occurs, the activity should be designated clearly, as a non-extension service function.

OMAFRA has a statutory obligation to provide information in French as well as English. **Written material, to be distributed and used provincially, especially in regions with a significant French-speaking population, should be made available in two languages at time of release.** The same applies for time-insensitive information on the Internet. However, for information which is time sensitive, the time of release, and the decision as to whether to release, must not be compromised by the need to translate. This may necessitate the need for more translation capabilities within the Agriculture and Rural Division. Opportunities should be exploited to work more cooperatively with the Ministère de l’Agriculture, des Pêcheries et de l’Alimentation du Québec (MAPAQ), in seeking means of providing quality information on the Internet, or in written form, in two languages. The fact that MAPAQ charges for written information should not be a serious problem when OMAFRA chooses to do so as well.

OATI (Ontario Agricultural Training Institute), funded to a substantial extent by Agriculture and Agri-Food Canada, provides many training short courses for those in rural Ontario. These courses often involve skill development, but OATI is prepared to offer courses in almost any area where there is sufficient demand. Changes in federal funding will mean the elimination of federal support for course delivery, but not for the preparation of course materials. OMAFRA field offices have assisted OATI by coordinating the course registration process. **Efforts must be continued to minimize the amount of duplication between OATI and**

## **OMAFRA courses. The same applies for courses offered by the Office of Continuing Education, University of Guelph.**

OATI courses seem well suited for the development of skills such as computer/Internet operation, accounting and other similar functions. This should permit OMAFRA and the university to concentrate on more specialized training in the area of agricultural technology and rural development. The development of courses to be offered electronically (e.g., by Internet) should be encouraged. This is one area where fees could be charged for services delivered by the Internet. This offers special opportunity for training in areas of the province where the density of potential clients is lower than average. In taking this direction, however, care must be taken to ensure that Ontario courses do not duplicate quality courses which are already offered electronically by other jurisdictions. Conversely, the Internet offers opportunity for cost recovery from non-Ontario residents - of value when the number of expected Ontario participants is below some critical threshold.

## **Concluding Comments**

The recommendations provided above represent a strategy for evolutionary change in the delivery of OMAFRA agricultural and rural advisory services. No revolution is needed, in our view. The major changes recommended include: (1) the addition of a highly educated contingent of expert extension personnel, to function at the provincial level, with a level of subject-specific expertise recognized beyond provincial boundaries; (2) a closer working relationship between agricultural and rural research, and OMAFRA-supported extension efforts; (3) more partnership arrangements between OMAFRA and other entities such as farm and rural organizations, private advisory services, the University of Guelph, and adjacent provinces and states, in the delivery of extension services; (4) much greater use of - and greater flexibility in the use of - Internet technology as a means of information/technology transfer, and training; and (5) greater dependence on office administrators in field offices as agents for information dissemination.

The proposed strategy has a time horizon of about five years. A longer vision is almost impossible because of a combination of factors, including: (1) the unknown effects of current changes in provincial and municipal government restructuring in Ontario; (2) the rapidity of change in Internet technology; and (3) uncertainties over the extent to which Ontario farm and other rural organizations may become interested in more control of, and funding for, agricultural and rural extension services.

On the latter point, we note that farm organizations have assumed major control of agricultural extension activities in some other countries, with Denmark and France being notable examples. While governments continue to fund a significant portion of program costs in these countries, the delivery is managed by farm groups - in a national manner in France, but in a very regionalized manner in Denmark. Farm organizations have apparently assumed substantial responsibility for delivery of extension services in some Latin American countries, though this could be a response to an absence of service provision by government(s). Ontario farm organizations and/or their members are generally not eager, at least yet, to assume the role played by some of their counterparts in certain other countries. But this could change.



For these reasons, the type of review described above should be repeated within no more than five years.

Comments and recommendations represent the views of the two authors only, and not those of the Ontario Ministry of Agriculture, Food and Rural Affairs, nor those of the Ontario Corn Producers' Association from which Daynard was seconded on a part-time basis, during the study.

We express appreciation to all individuals and organizations who provided comments and advice during the study process. We express thanks also, to the OMAFRA staff who provided backup support.



## **APPENDIX I: Discussion Group Backgrounder**

(Distributed to all participants prior to consultation sessions)

### **Why An Advisory Services Study?**

The collective input from over 1,300 participants in the September 1996 Table Talks, indicated that information or advisory services were the most important services which the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) should provide to maintain a competitive agricultural industry and thriving rural communities. Based upon this information and other client sector discussions, the Ministry has developed a Business Plan which identifies advisory services including research/technology transfer and rural economic development as two of its four core businesses.

More detail is required however, if OMAFRA is to focus its advisory services to ensure that the needs of the agricultural and rural communities are met. That's why OMAFRA has initiated this study, which will collect information from two main areas:

- Input from groups and individuals involved in the Ontario agricultural and rural sectors. Regional and organization discussion sessions will be held, and other interested individuals and groups are also encouraged to submit suggestions.
- Ideas will also be collected from jurisdictions and individuals outside of Ontario.

This paper is meant to give background for those providing input. It is designed to generate thoughts and response, but in no way is it meant to limit ideas.

### **What Are The Objectives Of This Study?**

Our objectives, once we have assembled all of the input are:

1. To recommend the core advisory services which OMAFRA should provide to the agricultural and rural sectors, either alone or in partnership with other groups and organizations.
2. To recommend better methods of service delivery using appropriate technologies to improve the usefulness and efficiency of advisory services.

### **What Do You Include As Advisory Services?**

As indicated in the objectives, we want your ideas on the types of advisory services that you think are important. The following is a list of what OMAFRA currently classifies as its advisory services.

- Technology/Information Transfer - assembling and delivering information packages (e.g. crops, livestock, engineering, environmental sustainability, foods and nutrition, etc.) based upon technical improvements developed by researchers or practitioners in Ontario and



elsewhere. This information could be delivered through distribution of prepared information (electronic or printed publications), training and education programs, or through individual or group consultations.

- Business Process Improvement - providing business information and training to assist with human resources management, marketing, succession planning, financing and other business planning processes for agricultural and other rural businesses.
- Organizational Development - assisting with strategic planning, conflict resolution, and other processes for agricultural and rural organizations and municipalities.
- Leadership Development - providing individual development experiences including education and training for future agricultural and rural leaders.
- Rural Community Economic Development - information, facilitation assistance, training and education services related to community economic development and rural advocacy.

### **What Advisory Service Resources Does OMAFRA Currently Have?**

Until recently, OMAFRA resources related to advisory services for the agricultural and rural sectors were found within the Education, Research and Laboratories Division (ERLD), and the Agriculture and Rural Division (ARD). Under a recently completed agreement, most of the resources of the ERLD including the colleges, research stations and labs will become part of the University of Guelph effective April 1, 1997. The remaining OMAFRA resources will be those of the ARD which delivers advisory services from staff located at a network of 44 field locations, and from its new headquarters in Guelph.

Field offices are broken down into five regions as follows:

**South Region** - Essex, Harrow, Ridgetown, Komoka, Petrolia, Simcoe, Delhi, Vineland Station, Duff's Corners, Woodstock

**West Region** - Clinton, Stratford, Markdale, Clarksburg, Orangeville, Walkerton

**Central Region** - Fergus, Guelph, Georgetown, Port Perry, Barrie, Kettleby, Lindsay, Peterborough

**East** - Brighton, Belleville, Kingston, Kemptville, Perth, Nepean, Renfrew, Winchester, Avonmore, Alfred

**North** - Huntsville, Gore Bay, Sault Ste. Marie, Verner, New Liskeard, Kapuskasing, Thunder Bay, Dryden, Emo

The staff in these offices provide services in five program areas - **Crop Technology, Livestock Technology, Business Development, Rural Development and Resources & Planning**

The 1996/97 budget of the ARD for staff salaries, benefits and other operating expenses including equipment, supplies and travel is **\$29.6 million**. It employs **399 staff** which are broken down by location (Field Office/Head Office) and position type as follows:

<b>Position Type</b>	<b>Field Office</b>	<b>Head Office</b>	<b>Total</b>
Advisory (Delivery) Staff - Includes Agricultural & Rural Reps and Rural Community, Crops, Livestock, Raw Milk Quality, Business Management and Land Use Advisors	136	0	136
Specialist (Program Development) Staff - Includes Rural Development, Crops, Livestock, Business, Engineering, Resources/Environment, Leadership and Organizational Development and Land Use Policy Specialists	67	40	107
Administration and Office Support Staff	75	41	116
Managers - Includes Assistant Deputy Minister, Directors, Program Managers, Field Managers and Administration Managers	13	27	40
<b>TOTAL</b>	<b>291</b>	<b>108</b>	<b>399</b>

## What Future Considerations Do You Want To Discuss?

This is entirely up to the participants. We will try to leave the discussion sessions open so that you can raise the points that you feel are important. The following are a few ideas and questions that have come up in our discussions with others. You may wish to consider these in relation to your business or sector, but don't restrict yourself to these if there are other points that you wish to raise.

- Are there services which OMAFRA now delivers to your sector which you feel are no longer needed? Are there others which should be added, enhanced or modified?
- Should OMAFRA be phasing out of some of its current services to allow other organizations or businesses to assume responsibility? Are there possibilities for partnerships (i.e. shared delivery of a service) between OMAFRA and other organizations?
- OMAFRA has developed an enhanced partnership with the University of Guelph relating to research, education and laboratory services. Should the University of Guelph also be given more direct responsibility for technology transfer?
- OMAFRA is working with the agricultural sector to develop AgriCorp to deliver crop insurance, stabilization and other related programs. Should AgriCorp also deliver some components of OMAFRA's current advisory services?
- How can OMAFRA deliver its programs more efficiently? Are there opportunities for commercialization of some OMAFRA programs to permit more cost recovery? How does this effect OMAFRA's working relationship with private business and agricultural and rural businesses?
- Communications technology has been advancing rapidly over the past ten years. Can we increase our use of this modern technology to more efficiently and effectively deliver advisory services? How receptive are the agricultural and rural sectors to more use of technologies such as the Internet, CD ROM, satellite distribution, unstaffed information kiosks, etc.?

We look forward to receiving your advice on any topic which you feel will improve the usefulness of advisory services for the agricultural and rural sectors.





## **APPENDIX II: Consultations Carried Out In The Agriculture and Rural Advisory Services Study**

### **1. Ontario Regional Client Consultations**

Date	Location
Wednesday December 11, 1996	Guelph - Turgrass Institute Boardroom
Wednesday December 18, 1996	Komoka - OMAFRA Boardroom
Tuesday January 7, 1997	Brantford - Best Western Hotel
Monday January 20, 1997	Orangeville - Monora Park Pavilion
Wednesday January 22, 1997	Northeastern Ontario Teleconference
Thursday January 23, 1997	Northwestern Ontario Teleconference
Tuesday January 28, 1997	Kemptville - Kemptville College
Wednesday January 29, 1997	Brighton - OMAFRA Boardroom

### **2. Ontario Agricultural and Rural Organization Consultations**

Date	Location	Organizations
Tuesday December 3, 1996	Toronto - OFA Offices	OFA Executive
Friday December 13, 1996	Guelph - OMAFRA Boardroom	University of Guelph representatives
Monday December 16, 1996	London - OBPMB Boardroom	Ontario Soybean Growers' Marketing Board, Ontario Corn Producers' Association, Ontario Wheat Producers' Marketing Board, Ontario Bean Producers' Marketing Board, Ontario Canola Growers' Association
Tuesday December 17, 1996	Guelph - OMAFRA Boardroom	Ontario Agricultural Commodity Council
Thursday December 19, 1996	Guelph - OCPA Boardroom	Ontario Corn Producers' Association
Tuesday January 7, 1997	Tillsonburg - Tobacco Board Boardroom	Ontario Flue-Cured Tobacco Growers' Marketing Board
Thursday January 9, 1997	Guelph - OMAFRA Boardroom	4-H, Foundation for Rural Living, Advanced Ag. Leadership Programme, Junior Farmers' Association of Ontario
Monday January 13, 1997	Guelph - OMAFRA Boardroom	Federated Women's Institute, Ontario Farm Women's Network, Ontario Rural Child Care Committee, Ontario Rural Literacy Council

Tuesday January 14, 1997	Guelph - OMAFRA Boardroom	Ontario Association of Agricultural Societies, Ontario Horticultural Association, Ontario Agri-Food Education Inc., Community Food Advisors
Wednesday January 15, 1997	Guelph - OMAFRA Boardroom	Ontario Soil & Crop Improvement Assoc., Ontario Seed Growers' Assoc., Ontario Forage Council
Wednesday January 15, 1997	Guelph - Turfgrass Institute Boardroom	Women in Rural Economic Development, Economic Developers' Council of Ontario, Ontario Assoc. of Community Development Corp., Community Opportunities Development Assoc., Community Business Centre, Rural Ontario Municipal Assoc., County Planning Directors, Ontario Chamber of Commerce - Agriculture Committee, Farm Markets Ontario
Thursday January 16, 1997	Guelph - OMAFRA Boardroom	Dairy Farmers' of Ontario, Ontario Dairy Herd Improvement Assoc., Gencor
Friday January 17, 1997	Guelph - OCPA Boardroom	Ontario Farm Environmental Coalition
Monday January 20, 1997	Guelph - Poultry Centre	Ontario Poultry Council, Ontario Egg Producer Mkgt. Board, Chicken Farmers of Ontario
Tuesday January 21, 1997	Guelph - OMAFRA Boardroom	Ontario Grain & Feed Assoc., Fertilizer Institute of Ontario, Crop Protection Institute of Canada, Canadian Bankers' Assoc., Ontario Retail Farm Equipment Dealers' Assoc.
Wednesday January 22, 1997	Etobicoke - Ontario Pork Boardroom	Ontario Pork Producers' Marketing Board, Ontario Swine Improvement
Monday January 27, 1997	Guelph - OCA Boardroom	Ontario Cattlemen's Assoc., Beef Improvement Ontario
Monday January 27, 1997	Woodstock - OMAFRA Boardroom	Christian Farmers' Federation of Ontario
Thursday January 30, 1997	Guelph - OMAFRA Boardroom	Agricultural Consultants
Thursday January 30, 1997	Guelph - OMAFRA Boardroom	Rural Consultants
Wednesday February 19, 1997	Toronto - Constellation Hotel	Ontario Fruit and Vegetable Growers' Association
Friday February 21, 1997	Guelph - OMAFRA Boardroom	Ontario Agricultural Training Institute
Friday February 21, 1997	Guelph - OMAFRA Boardroom	Ontario Institute of Agrologists
Wednesday March 5, 1997	Guelph - OMAFRA	AgriCorp

### 3. OMAFRA Staff Consultations

Date	Location
Wednesday December 18, 1996	Ridgetown - Ridgetown College
Thursday December 19, 1996	Komoka - OMAFRA Boardroom
Monday January 13, 1997	Duff's Corners - OMAFRA Boardroom
Monday January 20, 1997	Fergus - OMAFRA Boardroom
Tuesday January 21, 1997	Markdale - OMAFRA Boardroom
Wednesday January 22, 1997	Port Perry - OMAFRA Boardroom
Tuesday January 28, 1997	Kemptville - Kemptville College
Tuesday January 28, 1997	Avonmore - OMAFRA Boardroom
Wednesday January 29, 1997	Northern Ontario Staff Teleconference
Wednesday January 29, 1997	Brighton - OMAFRA Boardroom
Friday January 31, 1997	Guelph - OMAFRA Boardroom
Thursday February 13, 1997	Clinton - OMAFRA Boardroom
Tuesday February 18, 1997	Guelph - OMAFRA Boardroom (Senior Management)

### 4. Out-of-Province Visits

Date	Location	Contacts
February 2-3, 1997	Madison, Wisconsin	Representatives of University of Wisconsin, Local Government Centre, 4-H Youth Development Program, Centre for Community Economic Development, Local Community Development Agents, Community Leaders, State Extension Service
February 4-5, 1997	East Lansing, Michigan	Representatives of Michigan State University, Co-operative Extension Service, Michigan Farm Bureau, County Agents, Farm Organization Leaders, Agribusiness Consultants
February 13-14, 1997	Quebec	Representatives of MAPAQ, GEAGRI Farm Management and Savings Group, L'Union des Producteurs Agricoles, Les Syndicats de Gestion Agricole
February 25-26, 1997	Edmonton, Alberta	Representatives of Alberta Agriculture and Rural Development



## **5. Other Out-of-Province Contacts**

A questionnaire was circulated to a number of specific contacts in other jurisdictions, and responses were received through written summaries, emails or telephone discussions. The following represents a list of the organizations and jurisdictions who provided input into the study:

New Brunswick Rural and Small Town Research Program  
New Brunswick Agriculture and Rural Development Department  
Manitoba Rural Development  
Manitoba Agriculture  
Nova Scotia Agriculture and Marketing Division  
Nova Scotia Economic Renewal Agency  
Northeast Regional Centre for Regional Development, Pennsylvania State University  
North Central Regional Centre for Regional Development, Iowa State University  
Heartland Centre for Leadership Development, Lincoln, Nebraska  
Centre for Community Enterprise, Vernon, B.C.  
University of California - Kearney Agricultural Centre  
Rural Development Centre, University of New England, Armidale, Australia  
Centre for Rural Revitalization and Development, University of Nebraska  
Purdue University Co-operative Extension Service  
Saskatchewan Agriculture and Food  
Agricultural Development and Advisory Services (ADAS), U.K. Ministry of Agriculture,  
Fisheries and Food

## **APPENDIX III: Observations on Agricultural and Rural Extension Elsewhere in North America**

Summarized by Terry Daynard

As part of the study on agriculture and rural advisory services in Ontario, some time was spent assessing how equivalent services are provided by agricultural and rural ministries/departments in other Canadian provinces and American states. Direct visits were made to Quebec, Alberta, Wisconsin and Michigan. Correspondence was exchanged with authorities responsible for agricultural and/or rural extension in several other provinces and states. Dr. Bob Nielsen, a professor at Purdue University with 85% extension responsibilities, was on sabbatical in Ontario in February 1997 and provided insight on agricultural extension activities in Indiana and other states, and on use of Internet technology for extension purpose. Comments and advice received from all of those contacted are greatly appreciated.

### **Other Provinces**

The basic system by which public agricultural advisory services are delivered is similar in all Canadian provinces, with those provincial ministries responsible for agriculture having regional offices located across each province and with staff being direct employees of the ministry. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the New Brunswick Department of Agriculture and Rural Development (NBDARD) appear to be unique in the extent to which "rural" is a core part of the mandate. The focus of rural activities within NBDARD is on rural business development. The minister for the Nova Scotia Department of Agriculture and Marketing has indicated that this ministry will become involved in rural development, but the nature of this involvement is still being developed.

Ministries/departments in other provinces generally address rural issues only if they are directly related to agriculture and food. (Fisheries and forestry are placed in the same ministry as agriculture in some provinces.) Manitoba has a separate (new) ministry/department of rural development.

The number of local offices has been reduced recently, in several provinces, for budgetary reasons. In Alberta and Quebec, and perhaps other provinces, there are several regional offices as well as smaller, more numerous, local offices.

Manitoba retains a traditional system with each local office having an agricultural representative, a home economist, a 4H/youth co-ordinator, and (depending upon the need) a specialist. Each Saskatchewan local office has a "client service representative" and one-to-three specialized or generalized agrologists.

Alberta has designated all of its field staff as being client service representatives or specialists, having discarded the role of the traditional district agriculturist (generalist). Some specialists are staff of the Field Services Branch of the ministry and some are members of the Production and Marketing Branch. Some specialists are located at field offices, some in head office, and some at



provincially supported research stations.

Quebec has a strong regional structure, with most field extension activities of the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) being directed and co-ordinated by 13 regional directors. These directors have substantial authority and autonomy as to the expertise of staff employed at the regional level, i.e., within budgets and broad guidelines set provincially. Inter-regional co-ordination occurs via provincial "tables" which meet one or more times per year. Quebec has a large number of farm management and production clubs, to which producers belong with annual membership fees being about \$850 each. Each club generally employs one full-time employee. MAPAQ subsidises these positions to the extent of about \$1000 per farmer member. Farm environment clubs are now being created, as well.

Quebec agriculture (both MAPAQ and the private sector) has been engaged in a major review and re-shaping of all agricultural programs and policies since 1992. A major extension study has been completed which recommends an enhanced partnership role between farm organizations, MAPAQ and private companies. However, no agreement has been reached on whether to implement the recommendations. There is a substantial concern among individual producers that 'partnerships' could mean off-loading of MAPAQ responsibilities. The Union des Producteurs Agricoles (the umbrella general farm organization in Quebec) has played a major role in this process, and, indeed, has completed its own study of agricultural extension needs in the province.

The relationship between ministry/departmental extension advisory services and provincial universities with special responsibilities in agriculture and rural affairs varies among provinces. The closest relationships appear to exist in Saskatchewan, Manitoba, Ontario and Nova Scotia even though none of the corresponding universities has a large formalized role in the provincial extension system. By contrast, there appears to be only a weak working relationship between extension activities of MAPAQ, and that of agricultural and rural universities in Quebec (Laval, Macdonald College of McGill University). These universities apparently have their own separate systems for agricultural extension. Nowhere in Canada is there a relationship between universities and public extension similar to that found in the United States.

Provinces differ in their approach to cost recovery for extension services. To our knowledge, no province charges fees for traditional individualized consultations, though fees for courses, workshops and other specialized services are common. Quebec has transferred responsibility for extension publications to a crown corporation, GEAGRI, which develops, publishes and distributes publications on a cost recovery basis. Few free MAPAQ publications exist in Quebec. GEAGRI also publishes and distributes publications for other organizations (examples, Laval university, some commodity sectors) on a fee-for-service basis.

Alberta and Saskatchewan appear to lead the nation in the extent to which the Internet and World Wide Web are used in agricultural extension. Quebec (GEAGRI) has a well developed site with many valuable "pages" of information. The GEAGRI site is unique in that Internet visitors are charged for most of the pages of information accessed. (Internet visitors have accounts; invoices are sent for material accessed.)

4H is strongly supported in several provinces. There is a 4H/youth co-ordinator in every local office in Manitoba. There are six full-time field staff providing 4H advisory services in Nova

Scotia, plus other supervisory and program development staff at the provincial level.

The Government of Canada plays no direct role in the delivery of agricultural extension services. However, Agriculture and Agri-Food Canada (AAFC) plays a significant role in a number of areas including the provision of research information, funding for on-farm activities such as environmental farm planning, and the development/publication of extension resource material. AAFC plays a role in co-ordinating information available via the World Wide Web, and through the Canadian Farm Management Business Council. AAFC has provided core funding for activities of the Ontario Agricultural Training Institute (OATI), though this funding will be restricted, in the future, to the preparation, and not the delivery, of extension services. AAFC helps fund 4H co-ordination at the national level.

## **The United States**

The basic system for the delivery of agricultural extension services in the United States of America involves the co-operative extension service and “land grant” universities. This system has existed since the early part of the twentieth century.

Funding for activities within each state is cost shared in the approximate ratio of 25% federal- 50% state- 25% county governments. The total amount of funding for agricultural (and rural) extension is about \$45-50 million (U.S. currency) per year in both Michigan and Wisconsin. The size of the agricultural industry is smaller in either state compared to Ontario. (The OMAFRA budget for agricultural and rural extension is about \$30 million.)

The delivery of agricultural (and rural) extension is done exclusively through the land grant university in most (if not all) states. Funds from the three levels of government go directly to the university. The university, in turn, is responsible for all aspects of delivery.

This delivery system generally involves administration within the university system, faculty members whose responsibilities are commonly 75 to 100% extension, and local agricultural offices in most counties. There may be other regional extension specialists. All are employees of the university.

The degree to which extension activities include ‘rural’ varies substantially from state to state. There is a strong emphasis on ‘rural’ in Wisconsin, but much less so in Michigan and Indiana.

Most of the county funding goes to support local county offices. The quality of service provided can vary substantially depending upon level of local support provided. Annual support in the vicinity of \$500,000 per year occurs in some counties. The core office unit typically involves a county agent and 4H/youth extension worker, plus support staff; but additional funds may be used to hire specialists and/or to purchase sophisticated equipment. In some counties in Indiana where Purdue University decided to close offices for financial reasons, the county offices remain open with the counties providing 100% of the cost. (Personnel are still Purdue employees.) The typical Indiana office is funded about two-thirds by the county. The situation is similar in other states. County offices are often located in the county building.

Some states have regional extension specialists, in addition to faculty extension specialists, and

the personnel in county offices. These may function on a regional basis in a pattern set at the state level, or at the county or multi-county level via funding arrangements established locally.

County personnel (county agents, 4H/youth extension workers) generally have masters degrees. This is a requirement for new employment in many states. Extension specialists at the state level usually have Ph D degrees.

4H is a high priority in the United States. Wisconsin spends about \$8 million (U.S.), annually, on 4H (versus about \$1.5 million (Can.) in Ontario.) The majority of U.S. club members are urban, or at least non-farm. There are about 95,000 4H club members in Wisconsin, with over half of them being in Milwaukee. The emphasis in U.S. 4H clubs is on leadership and citizenship.

In addition to 4H, extension personnel at the local level play a major role in agricultural education within the school system.

In comparison with the land-grant university-led extension system in American states, state departments of agriculture are very small in stature - their role being generally one of regulation and quality control. (States play an insignificant role in safety net program design or funding in the U.S., and state financial support for agricultural research comes directly from the state legislature.)

Extension personnel associated with land-grant universities are generally held in high regard by American farmers. By comparison, state agricultural officials are viewed as being regulators.

The dean of agriculture and the university administration play a major role in deciding the nature of extension services in the state. If neither views that agricultural (and rural) extension is important, the quality of the service will suffer.

Working agreements often exist among neighbouring states for the common delivery of extension services.

It is worth noting that the State of Illinois moved away from the traditional local office approach, a number of years ago, in favour of a smaller number of regional offices. This move has been judged a failure by extension personnel in other states.

There is no evidence that major changes are pending in the delivery of agricultural extension services in most states, though the role of 'rural' is likely to become more important. Nebraska, like Wisconsin, is known for its strong emphasis on rural.

There is no evidence that private extension is likely to replace publicly funded extension as the dominant source of advice for American family-scale farms. This is especially so for cash-crop farms in the U.S. Mid West. The situation is different for very large hog, feedlot, dairy and horticultural farms located in some regions of the United States. Crop management services tend to be more prevalent than consulting services - especially consulting services which are independent of input supply companies.



## **APPENDIX IV: Relevant Advisory Articles**

### **1. Extension Workshop At The World Bank - Case Study: ADAS (United Kingdom)**

Prepared by: D. Griffis  
Head of ADAS International  
Oxford Spires Business Park  
Kidlington, Oxfordshire, England. OX5 1NZ

Extension Mechanisms for Funding and Delivering Extension Conference  
June 18 and 19 1996: Washington D.C.  
(Reprinted with permission of the author)

The case: ADAS is an agency, owned by the UK Ministry of Agriculture, Fisheries and Food (MAFF), currently (1996) employing 1750 staff. ADAS has evolved from a government-funded extension service to a successful consultancy, likely to be privatized in 1997. ADAS provides consultancy to farmers and to corporate businesses in the UK; research and development (R&D) and consultancy to MAFF, levy organizations and corporate businesses; extension to farmers - under 'contract' to MAFF; consultancy in other countries.

#### **Evolution: 1946 - 1971**

Rudimentary, uncoordinated extension activity took place in the UK in the 1920's and 30's, based on universities, colleges and local government. The activity was coordinated in World War II, with strong MAFF control of farmers' activities and provision of technical advice. In 1946 a National Agricultural Advisory Service (NAAS) was created - the first national approach to extension - to improve agriculture and horticulture, to ensure food security, to improve the trade balance, and to raise living standards in rural communities.

In the 1950's and 60's the NAAS grew in size and capability, with a wide range of specialists supported by research and laboratories. 20 farms were acquired to carry out applied research. The NAAS undertook R&D and extension, but there was a gradual development of consultancy i.e. in-depth advice to individual businesses. The principle was established that all advice would be given in the best interests of the farmer and his business. All advice was provided free of charge. Substantial work was undertaken for MAFF, applying schemes designed to accelerate farm modernization.

**1971** The NAAS was combined with other MAFF technical services into the Agricultural Development and Advisory Service (ADAS). It then offered a near-comprehensive range of expertise, still free of charge, based on in-house research and supported by laboratories. Strong links already existed with all involved in the Agricultural Knowledge System (AKS). Private sector consultancy organizations were already well established, but they were small in scale and

highly selective of both clientele and services provided (mainly business management consultancy). ADAS was by far the largest consultancy for agriculture and had established an excellent reputation with the agriculture industry.

**1970's The increasing need for change is recognized.** The rapid improvement in food supplies in the 1960's enabled agricultural policy to change towards productivity improvement. MAFF introduced schemes to encourage farm modernization. IN ADAS there was further expansion of consultancy activity, with extension increasingly linked to specific MAFF policies. The UK joined the European Economic Community (now the EU) in 1973. This led to a rapid increase in prices for agricultural commodities and it coincided with dramatic technical advances, especially in crop production. Surplus food, and the cost of dealing with it, became a major concern. Policies were introduced to control food surpluses, by direct production control and by diverting countryside resources into non-agricultural activities. Farmers were encouraged to diversify and to add value to their produce, and also to remain in the countryside. There was pressure to improve marketing, driven by the rapidly changing retail scene.

ADAS adapted to these changes, helping to apply MAFF policies, but retaining independence of advice, which was considered fundamental to maintaining credibility with farmers. ADAS developed new skills, particularly in business management consultancy.

It was, however, increasingly perceived that ADAS was a larger and costly organization serving an industry by now well modernized and competitive and producing food surpluses. The original justification for a free extension service was clearly less strong.

**1980's ADAS gradual transition to a commercial approach.** There are many arguments for introducing charges for advice. It should lead to more market-orientated consultancy, better use of consultancy/extension resources, a high quality of service related to identified needs, a more professional relationship with farmers. ADAS experience is that all these benefits are achieved.

But there are also potential disadvantages. Low income farmers may judge that they cannot afford consultancy fees, not being convinced that benefits will outweigh costs. This is mainly the judgment of small scale farmers and those with farm systems that are inflexible or inherently of low profitability. There is consequently a decline in influence on this group. It may also become more difficult to justify retaining the skills required mainly for these groups.

The funding issue was addressed in 1984/85. The UK government decided that individual businesses benefiting directly from advice should contribute to the costs. Charges were introduced in April 1987. ADAS immediately changed its approach to consultancy, by focusing attention on farmers who were willing to pay. This reinforced the trend to a consultancy approach. ADAS became less willing to promote the latest ideas and practices into rural communities for the benefit of all farmers - except where this specifically required and supported by MAFF policies. MAFF had a range of policy objectives and ADAS continued to be involved on a significant scale in their application.

Initially a modest revenue target was set for ADAS and a fee rate was announced, calculated to achieve this target. This fee rate created a market expectation of low fees, which subsequently proved difficult to change. The revenue target was superseded in 1988 by cost recovery, initially

set at 15%, but with a requirement for ADAS to achieve 50% within 5 years, and full cost recovery at some future date not specified at that stage.

This coincided with the MAFF decision to withdraw a large proportion of funding for 'near-market' R&D. ADAS was obliged to seek new customers. Its research stations, by now reduced in number, sought new funding, but continued to undertake specific R&D programs in areas of policy research. R&D thus remained an integral part of ADAS.

**1990's Progress towards full cost recovery and a change of status.** In the late 1980's the UK Government introduced a 'Next Steps' initiative under which 'agencies' can be created to undertake work previously undertaken by government departments. ADAS became an agency as from April 1992 and as such has considerable autonomy, whilst remaining wholly owned by MAFF. Broad objectives, and a funding limit, are agreed annually, and performance indicators are specified for monitoring purposes, after which ADAS has responsibility and considerable freedom to run its own affairs. One important consequence of agency status is that work undertaken for MAFF is agreed annually in 'quasi contracts', which specify the work to be done, timescale, quality standards and cost.

As cost recovery targets for consultancy increased, it became increasingly clear that achievement of full cost recovery is incompatible with operational constraints that apply to government agencies - for example, concerning investment in market development, personnel and financial management issues. ADAS has gradually been given greater freedoms, but significant constraints remain. With these issues in mind, a review of 'options' for ADAS future, completed in 1994, concluded that ADAS should be privatized during 1997, conditional on continued satisfactory progress towards 100% cost recovery. In preparation for this step, the target for 1996/97 is 100%. Thus, as from 1 April 1996, there is no government subsidy for any work undertaken by ADAS.

## **The Impact of Change**

The changes summarized above have significantly affected ADAS, its operations and its clientele.

**ADAS and its operations:** ADAS responded to the challenges presented by the introduction of charges and financial targets and by the new 'market' opportunities that become available - by adopting an increasingly commercial approach, based on market and customer satisfaction analysis; by developing consultancy 'products' and well planned and implemented promotional and sales efforts; by training staff to improve their commercial skills; by simplifying and improving ADAS organizational structure and management processes; by reducing ADAS unit costs, partly by improving operating efficiency and partly by rationalizing the use of resources such as offices and laboratories; by reducing staff numbers (from about 3000 in 1987/88 to about 1750 in 1997/98) - releasing staff clearly unable to respond to commercial requirements; by introducing new working practices and communication technology.



**ADAS markets and clientele:** The total market for consultancy has grown significantly and this has benefited ADAS and its competitors. ADAS clientele has changed. MAFF remains ADAS largest customer and much of the work can still be described as 'extension' in the broadest sense. The number of farmer customers has reduced on an annual basis, but taking several years together the number of farmers with whom ADAS is in regular contact has not reduced significantly. ADAS has established a clientele with 'corporate' businesses associated with agriculture and is also working on a significant scale in other countries - where ADAS evolution and broad experience has proved to be highly relevant to the process of establishing and improving extension services. The relationship with all groups of customers has changed. It is now much more businesslike and this is beneficial to both parties.

### **What works better now?**

ADAS efficiency of operations is much improved, as a consequence of the introduction of charges and financial targets and the adoption of a highly structured approach to work for all customers. A good indicator of improved efficiency is 'utilization' - the proportion of available time actually applied to work for customers: this has increased year by year and is now approaching the maximum possible. The cost-effectiveness of ADAS work has improved as a consequence of significant reduction in unit costs and customers requiring clear benefit from the work provided. The relationship with MAFF priorities and objectives for the government and other customers. The approach needs to be sufficiently flexible to allow the developing organization to respond to externalities.

### **What were the tools or mechanisms used to initiate and guide the change and maintain momentum?**

**Initiate:** The UK Government had a changed vision of the support needed by the industry and wished to reduce costs. The mechanisms used by MAFF were to introduce charges and financial targets, to clarify objectives, to define more clearly the work it required to be undertaken to implement its agricultural policies.

**Guide and maintain momentum:** Agency status requires the development of a 5 year Strategic Plan for ADAS and an Annual Business Plan, both of which have to be agreed with the parent organization (MAFF). Performance indicators are agreed with MAFF each year and these are used to monitor progress. Within ADAS there is management process which involves planning and monitoring at the level of operational units. There is also a process of strategic planning, based on market analysis.

**Is the organization sustainable?** It was an objective that a sustainable organization would be established and progress to date indicates that the objective will be achieved. In the current financial year ADAS will be financially self-sufficient, as a basis for moving to the private sector in 1997.

**How to train extension managers?** ADAS perceives that staff training is a fundamentally important activity and it is provided on a substantial scale at all levels. Training needs are different for staff with different roles. ADAS is organized on a team basis and managers of

teams receive particular training on the management and motivation of staff. Training is a continuous activity and an important part of it is to provide opportunities for sharing experience.

Organizations such as ADAS that have been through the transition process are aware of at least some of the potential hazards and so can pass on the benefits of their experience to others. The transition described is a complex process and outside help and support is almost certainly needed, not least because the cultural change within the organization and its managers is so great.

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## **2. Privatization Lessons for U.S. Extension from New Zealand and Tasmania**

Peter Bloome, Assistant Director  
Illinois Cooperative Extension Service  
University of Illinois at Urbana-Champaign

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When public agencies come under budget stress, user fees are often suggested as a means of cost recovery. The question of whether any of the agency's activities could be made self-supporting or spun off to the private sector is often asked. In considering such funding alternatives, U.S. Extension can look to other countries where experiments in privatization have been taking place for several years.

During the last six months of 1991, I did a study of the privatization of advisory services in New Zealand and Tasmania. The study, which involved interviews with Extension professionals, administrators, and clients, provided insights into what might occur if U.S. Extension adopts similar approaches.

In Australia and New Zealand, Extension is largely an advisory service, primarily involves agriculture, and is attached to Ministries of Agriculture, which also have responsibility for research and regulation. Defining Extension as advisory services emphasizes the private benefits of Extension activities and, when government budgets are stressed, can easily lead to the conclusion that Extension's private sector clients should pay for its services. With this focus on the role of technology transfer, educational, human development, and community benefits are easily overlooked. In these countries, Extension's almost exclusive association with agriculture reinforces the notion that its allegiance lies with private interests within agriculture rather than with the public.

These factors have led to attempts to divide advisory services into public and private benefit categories with the implication that private benefit activities should recover costs through user fees. Attempts also have been made to divide the Extension function itself between public and private providers. Private Extension, in this concept, involves any professional in

the private sector who delivers advisory services to agriculture, and is seen as an alternative to public Extension.

The Australian state of Tasmania has the longest experience with fee-for-service Extension activity in the world, having introduced fee-based advisory services in 1982. The Labour government in New Zealand went several steps further in 1985 when it required the advisory services of the Ministry of Agriculture and Fisheries (MAF) to become completely commercial by 1990 as the first step to privatization. The final step was planned for July 1, 1992, when MAF Management Consultancy Services was to become a State Owned Enterprise (SOE) with the government as the initial sole shareholder.

## **Fee-Based Extension**

Interviews with departmental staff and farm organization leaders revealed that fee-based Extension has been an unhappy experience in Tasmania. Implementation of the cost recovery policy fell on top of a major restructuring that required field staff to assume roles of greater technical specialization. Field staff reported they were still trying to gain confidence in their new roles when they were required to charge farmers for their contacts.

Thompson found that the new policy hadn't caused the department staff to be monopolized by one size class of farmer, as some had feared it would. Nor had it attracted new clientele. However, 90% of client farmers had reduced the frequency of contact with the advisory services. They also had changed the manner of contact from predominantly face-to-face to telephone.<sup>1</sup>

One of the important functions of Extension is to facilitate the transfer of information between farmers. Departmental field staff reported their perception that less personal contact between themselves and farmers had greatly reduced the effectiveness of the service. In their view, assigning charges to their personal interactions with farmers had restricted staff access to an essential source of information and impeded the free flow of information within the agricultural knowledge system. Departmental staff believed they were losing touch with farmer thought and innovation.

Interviews with farm organization leaders revealed a concern that linked fee-based Extension with increased regulation of agriculture and forestry in Tasmania. When Extension is both publicly and privately funded, its ability to serve the public interest on issues such as sustainability is questioned. As the department concentrated on developing a more commercial relationship with its agricultural clientele, farm leaders believe it became less an agent of the public and was less able to challenge the rural community on important public issues. They believe the fee-based policy has weakened Extension as a force for positive change in rural Tasmania. With a weakened public sector pursuing its interests through voluntary approaches, the Tasmanian electorate has resorted to greater regulation of its agricultural industries.

The fee-based service policy in Tasmania also failed to generate significant cost recovery. After 10 years of the policy, fees don't total five percent of annual departmental revenues.



## **Commercialization**

The introduction of commercialized advisory services in New Zealand left few recognizable parts of the earlier service. Interviews with the regional consultancy managers revealed that since 1985, when the transition began, professional staff and clientele numbers had fallen by more than 50%, with reductions reaching 80% in one region. Commercialization required a shift in organizational culture that proved difficult, particularly for older staff. While the managers report contact with fewer farmers, that contact has greater depth than before.

In addition to individual farm and business clients, the service is marketing its capabilities as a national system to commodity groups and agricultural input and processing industries. Technology transfer contracts are being pursued with the three newly formed Crown Research Institutes (CRIs) having responsibility for agricultural research. Government is also being cultivated as an important client. The organization is pursuing government contracts to provide strategic information about agriculture to government and supply public benefit information to agriculture. The organization's reduced client base and commercial nature would appear to limit its credibility for these roles.

Ritchie reported that the plan for MAF Management Consultancy Services to become a State Owned Enterprise on July 1, 1992 has been postponed due to the inability of the SOE Board to attract sufficient staff with the required qualifications and regional representation. Present plans call for the privatization of local practices (district offices) with franchises back to MAF. In return for the franchise fee, MAF would supply national generic marketing, marketing to large corporations, quality assurance, and administrative systems.<sup>2</sup>

The New Zealand experience is an excellent case study as it involved movement from public funding to commercialization in a five-year period. The capacity to conduct public benefit Extension programs no longer exists except as the government may contract with private entities. Again the question of whether a commercial organization can serve the public interest arises. Koller cites public benefits to Extension that can't be commercialized.<sup>3</sup> This suggests private Extension (private sector delivery of advisory services) can't completely replace public Extension.

## **Lessons for U.S. Extension**

It's worth remembering that the privatization of advisory services in Tasmania and New Zealand wasn't voluntary; it was directed by external political forces. Such decisions hinge not only on fiscal considerations, but also on majority public (and public official) perceptions of the relative public versus private value of the service. When the majority view is that the service is primarily of private value, or that it can best be provided by private markets, then that will largely determine the outcome.

The Tasmanian and New Zealand experiences are most applicable to that part of U.S. Extension relating to agriculture. The U.S. definition of Extension as public education within the

land grant university system reduces somewhat the application of this experience. Nonetheless, the privatization efforts in Tasmania and New Zealand suggest several lessons.

Publicly funded Extension must reaffirm that it's about the public business. While this seems obvious, the point has become confused. Public Extension disseminates objective, scientific information and encourages its application by individual families, farms, businesses, and communities. The purpose isn't private profit maximization. Rather, the public supports this work to capture the larger benefits it brings to society. That innovative farmers, and others, may reap a windfall is part of the process, but not its justification. Efforts to divide the benefits of Extension programs into private and public categories, then, aren't helpful in pursuing the interests of either the public or agriculture.

Public Extension doesn't compete with the private sector. The public won't continue paying Extension to do work that can be done by the private sector. Extension must be competitive in acquiring the resources necessary to fulfill its unique mission and in hiring and rewarding staff. But in its educational role, Extension can only cooperate. Wolek argues that when Extension finds itself competing with the private sector in programming, it's probably doing the wrong thing.<sup>4</sup> In fact, one of Extension's important public roles is to support the development of a dynamic, innovative, and competitive private sector; for the public benefits that a well-functioning private sector yields. At the same time, the public educator's role is necessary precisely because private goals and actions aren't adequate to serve all the public's needs.

Charges for interacting with Extension agents are incompatible with the public educator role. These charges restrict the free flow of information within the agricultural knowledge system and have the same effect as restricting access to research results. At the same time, Wolek defends Extension's use of nonprofit user fees,<sup>5</sup> including charges to recover the costs of delivering information to individuals through publications, plant and animal diagnostic services, computer programs, conferences, workshops, and other means.

Private Extension isn't an alternative to public Extension in matters related to the public interest. To paraphrase Breimyer,

"No private entity is charged with the responsibility to pursue the public interest, and none should be rebuked for failing to pursue it. Only public institutions have that responsibility."<sup>6</sup>

## **Conclusion**

Extension is a public investment in the ability of agriculture to voluntarily incorporate public goals. This isn't to suggest that Extension can completely replace regulation and control. However, public education offers an alternate way for society to pursue its interests with agriculture-be they greater productivity and competitiveness, reduced environmental impacts, increased rural employment, sustainability issues, or others. When Extension functions properly, agents of the public-who possess agricultural expertise-challenge and work with the industry to bring about change responsive to public interests, yet sensitive to the needs of agriculture.

Lacking a credible public education capability to address its goals, the public can only resort to greater regulation and control. As the experiences of New Zealand and Tasmania demonstrate, surely public Extension, by being less intrusive and restricting, is more efficient in addressing public/private interest issues.

## Footnotes

<sup>1</sup> R. P. Thompson, "Fees for Farmer Advisory Services," *Journal of Australian Institute of Agricultural Science*, LII (No. 2, 1986), 73-78.

<sup>2</sup> Personal communication, I. J. Ritchie, acting national business manager, MAF Management Consultancy Services, July 13, 1992.

<sup>3</sup> Personal communication, B. Koller, national business manager, MAF Management Consultancy Services, July 16, 1992.

<sup>4</sup> F. W. Wolek, *Cooperative Innovation: Key to a New Agriculture* (Villanova, Pennsylvania: Villanova University, Center for Agricultural Commerce, 1989), pp. 15-17.

<sup>5</sup> *Ibid.*, pp. 54-55.

<sup>6</sup> H. F. Breimyer, *Economic and Marketing Information for Missouri Agriculture* (Columbia, Missouri: Department of Agricultural Economics, September 1987).

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### **3. Impacts of Extension Privatization**

William M. Rivera Associate Professor,  
Adult and Extension Education Programs and  
Coordinator, Center for International Extension Development  
University of Maryland, College Park, Maryland

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International (Reprinted with permission)

Extension privatization has been taking place on a global basis since the mid-1980s as a result of severe attacks on public sector Extension Systems.<sup>1</sup> Studies of privatized systems in countries demonstrate the negative effects of such systems, particularly on small farming.

#### **The Netherlands and New Zealand**

The Netherlands completed in 1990 its first steps toward "Going Dutch."<sup>2</sup> Beginning in 1993, farmers will have to pay an increasing share of the Extension services until a share of 50% of the total costs is reached in 2003. This decision to privatize has brought with it important changes. Farmers' representatives now exert more influence on the Extension Service. Provincial Offices for Agricultural Affairs have been created. This effectively separates Extension advice on farm management from the provision of information on government policy by provincial offices. Two Information and Knowledge Centers (IKCs) have also been established as a new type of organization for the transfer of knowledge and specialists have been integrated into Extension teams within those centers.<sup>3</sup>

As a result of The Netherlands Extension privatization, Huang notes the high level of cooperation among Dutch Extension information organizations in both the public and private sectors no longer exists. The more commercial attitude of the system has created tensions between Extension workers and their clients in what has become a less open and even fragmented knowledge and information system. Farmers who used to share information during study-group meetings are more reluctant to do so.<sup>4</sup> Although The Netherlands government goal has been attained, farmers and information services seem to be more isolated from one another as a result.

New Zealand's system was totally commercialized in 1987. Its Ministry of Agriculture and Fisheries (MAF) now operates in a results-oriented, user-pay environment. Its previous structure of 10 technically oriented divisions, such as the Meat Division, the Animal Health Division, and the Economics Division, was reorganized into four businesses. These businesses were distinguished on the basis of accountability, clients served, services provided, and responsibility for outcomes. The four businesses are MAFTechnology, MAFQuality Management, MAFFisheries, and MAFCorporate Services.

It appears, however, that more recently, the New Zealand agricultural advisory service is being influenced by changes in the political and economic environment. A backlash from small- and medium-scale farmers who can't afford the contractual arrangements demanded by the four Extension businesses appears to be creating second thoughts among government officials. It has become clear that the bias of the privatized system is toward larger, wealthier farm enterprises, and that small-scale farmers have little access to what once was considered a "public good"- agricultural information and its transfer.

## **Who Should be Served?**

The concept of information as a public good raises several issues: the role of government, the question of information as private property, and the purpose and audience to be served by public sector agricultural Extension Services. When information is weighted only in terms of immediate costs and benefits, then information and knowledge cease to be goods to be provided by the public sector.<sup>5</sup>

Also, an important question is whether and to what extent privatized Extension Services and commercial agricultural development activities will give priority to concerns for environmental sustainability. Fostering a profit-first-and- foremost orientation to agricultural development is likely to prove injurious to a clean environment and further contribute to pollution and the ailments that inevitably result.

The trend toward privatization also highlights the movement toward crop production for commercial export purposes and the growing significance of commodity boards and private companies in determining the development of agriculture. This trend is being accompanied by what would appear to be a self-fulfilling prophesy -small-scale and even medium-scale farms are becoming obsolete. This is despite counter-arguments and indicators that small farms are significant contributors to export trade-in the range of five to six billion U.S. dollars annually.<sup>6</sup>

What's the role of research and Extension? In the more developed countries, like the United States, the answer at present seems evident. Only 2.3% of the population are currently engaged in on-farm agriculture and large-scale farming is the trend. Nonetheless, a legal case was brought to trial in California alleging that research and Extension Services wrongly serve mainly the needs of large-scale farm enterprises rather than the needs of small farmers. Although unsuccessful, this case pointed out the equity issue. From a practical rather than a legal standpoint, it might be argued that in states dependent on large-scale farm production, it's natural or at least understandable that research/Extension Services be geared mainly toward large-farm interests. For many southern states, with large numbers of small farms, this is less likely to be a good argument, although even in those states, small farming is rapidly waning.

These contrasting perspectives about agriculture reflect larger issues-specifically whether one adopts what might be called the "agribusiness" approach to agriculture,<sup>7</sup> the "agri-culture" approach<sup>8</sup> emphasizing rural community and small farming as prime concerns over mass production, or the "sustainable agriculture" approach that points to deterioration in the environment and the need for developing a profitable agriculture in a clean environment.

The exchange and transfer of agricultural information, know-how, and technological hardware between farmers and program managers is an important ingredient in any agricultural development plan and practice. But what is transferred, and how it's transferred, are political as well as technical questions.

## Implications

Extension Systems in The Netherlands and New Zealand demonstrate the consequences of privatization. These include: the tendency to reduce linkages and exchange of information between organizations and farmers, the trend toward enhancing large-scale farming to the detriment of small-scale farming, diminishing the concept of agricultural information as a public good, while promoting knowledge as a salable commodity, and a trend toward agricultural development services that cater primarily to large-scale farming.

The pressures of world trade, exponentially expanding populations, and the balance of special interest groups are accelerating agriculture toward "bigger is better." The reminders that "small is bountiful" appear to be lost in the rush toward concerns for growth. Meanwhile, developed countries face major environmental problems related in part to massive agricultural development, and developing countries find they can ill-afford to face the political and socioeconomic consequences of eliminating the livelihoods of their small farm households, as many of these are based on subsistence farming.

Is it finally time for attention to be turned from the focus on privatization toward the value and importance that have come to be associated with the small-farm enterprise? Certainly, it's not too soon to examine the implications of Extension privatization in the international arena for the future of farming and agricultural development worldwide.

## Footnotes

<sup>1</sup> W. M. Rivera and D. J. Gustafson, *Agricultural Extension: Worldwide Institutional Evolution and Forces for Change* (Amsterdam, The Netherlands: Elsevier Science Publishers, 1991).

<sup>2</sup> J. Proost and N. Roling, " 'Going Dutch' in Extension," *Interpaks Interchange* (Urbana-Champaign: University of Illinois, 1991).

<sup>3</sup> J. T. M. Bos, M. D. C. Proost, and D. Kuiper, "Reorganizing the Dutch Agricultural Extension Service: The IKC in Focus," in D. Kuiper and N. G. Roling, eds., *Proceedings of the European Seminar on Knowledge Management and Information Technology* (Wageningen, The Netherlands: Agricultural University, Department of Extension Service, 1991).

<sup>4</sup> R. Q. Huang, "The Level of Cooperation Among Agricultural Extension Organizations in the Greenhouse Vegetable Sector in the Westland Area in The Netherlands" (Paper presented at the 8<sup>th</sup> World Congress for Rural Sociology, Penn State University, University Park, August 1992).

<sup>5</sup> U.S., Office of Technology Assessment, *Technology, Public Policy and the Changing Structure of American Agriculture* (Washington, D.C.: U.S. Government Printing Office, 1986).



<sup>6</sup> E. P. T. Thompson, Jr., *Small Is Bountiful* (Washington, D.C.: American Farmland Trust, 1986).

<sup>7</sup> O. Freeman, "Reaping the Benefits: Cash Crops in the Development Process," *Health & Development*, I (March/April 1989), 21-23.

<sup>8</sup> W. Berry, *The Unsettling of America: Culture and Agriculture* (San Francisco: Sierra Club Books, 1977).



# **APPENDIX V: Literature Review for Agriculture and Rural Advisory Services Study**

## **Part 1 of 2**

### **Changes in Agricultural Advisory Services in Other Jurisdictions**

prepared by Brita Ball

Rural Community Advisor, Simcoe, Ontario

#### **Summary**

- pressures on public extension have led to various responses
  - privatization and/or fee-based systems such as The Netherlands, the United Kingdom, New Zealand and Australia
  - encouragement of alternative approaches to extension delivery like the systems in Denmark and Norway
- impacts of privatization and/or fee-based systems include:
  - reduced co-operation and information sharing among extension agents and farmers
  - reduced concept of agricultural information for "public good" and increased perception of knowledge as a saleable product
  - changes in client groups through loss of traditional clients and broadened market for agri-business, food processing and non-farm clients
  - trend toward services for large-scale farming systems
  - enhanced services to large-scale operations to the detriment of small- and medium-scale farmers
  - increased quality and consistency of extension information with fewer products/services
  - increased regulation and control to compensate for lack of private sector concern about serving broader public issues
- three approaches governments worldwide have taken to decentralize agricultural extension complement one another structural, financial and managerial (Rivera 1991, 1996):
  1. decentralize costs through fiscal redesign
  2. decentralize government responsibility for extension through subgovernment institutions
  3. decentralize management through farmer participation in decision making and, ultimately, farmer responsibility for extension programs



## **Changes in Agricultural Advisory Services in Other Jurisdictions**

### **Privatization of European and Pacific Rim Extension**

#### **The Netherlands** (McLaughlin & Cormier 1990, Rivera 1993)

##### **Background:**

- in the late 1980's, extension delivery was radically altered; 700 of 1200 positions were privatized (M&C)
- Dutch farmers began paying an increasing share of extension costs in 1993; by 2003, farmers will be paying 50% of total costs of services (M&C; Rivera)
- farm management advice is separate from information about government policy; generic extension is funded by government and farmer levy (50:50), specific consultancies would be offered at 100% user pay (M&C)
- two Information and Knowledge Centres (IKC) were created with a mandate to only transfer knowledge; specialists work as part of extension teams (M&C; Rivera)

##### **Impacts:**

- by 1990, co-operation among public and private extension organizations was reduced from a high level to none (Rivera)
- farmers had become reluctant to share information with others (Rivera)

#### **United Kingdom** (McLaughlin & Cormier 1990)

##### **Background:**

- Agricultural Development and Advisory Services (ADAS) provides advice to the agri-food industry, and public and private groups
- in late 1980's, advisory services for production became user-pay unless there was a public good component (i.e., diversification, animal welfare, conservation)
- expected to reach 50% cost recovery on commercial production services by 1993; 1989/90 recovery was 24%
  - four types of services are
    - 1) subscription - unlimited telephone access, some printed information by mail
    - 2) premium subscription - standard subscription plus four hours personal consulting
    - 3) hourly rate - charged to non-subscribers
    - 4) contracts - individual services for negotiated price
- basic and public good research is government funded; "near market" research is done on a user-pay basis

##### **Impacts:**

- by 1990, client group changed considerably; ADAS lost some traditional clients and began concentrating on increasing services to those with high buying potential (large intensive businesses)
- personal sales targets encouraged staff to focus on technical services they provide rather than on all ADAS services and team targets
- charging fees has increased quality and consistency, but limited the range of products

- changes in the number of private consultants is difficult to establish as "many are very limited part-time workers"; however, there appear to be limited funds for consultants so any increase in consultant numbers (through privatization) would reduce the money available to those already charging for their services
- size of the ADAS market increased and includes farm, agribusiness, food processing and non-farm clients
- research infrastructure for agriculture is negatively affected because the industry lacks organization and financial strength

## **New Zealand** (Rivera 1993; Bloome 1993, Hercus 1991)

### **Background:**

- system totally commercialised to a "results-oriented, user-pay environment" from 1987 to 1990 (Rivera, Bloome)
- four businesses provided services: MAFTechnology, MAFQuality Management, MAFFisheries, and MAFCorporate Services (Hercus)
- by 1992 a new MAFManagement Consultancy Services was to be a state owned corporation; this was postponed because the corporation could not get enough qualified staff (Bloome)
- plans were to change to a franchise system whereby, for a franchise fee, the government would do marketing, and provide quality control and administration (Bloome)

### **Impacts:**

- government rethinking the contractual arrangement because of backlash from small and medium sized operations which can't afford services (Rivera)
- more than 50% decrease in professional staff and clientele numbers; as high as 80% in one region (Bloome)
- capacity of the government to provide extension for public benefit no longer exists unless contracted out (Bloome)
- service extended its understanding and involvement in entire production-processing-transportation-marketing chain (Hercus)

## **Tasmania, Australia** (Bloome 1993)

### **Background:**

- fee-based services introduced in 1982

### **Impacts:**

- client farmers reduced contact frequency with advisory services
- no new clientele were identified
- client contact changed from predominantly face-to-face to telephone
- perception by advisory staff that reduction in client contact restricted staff access to information and charging inhibited the free exchange of information within the "agricultural knowledge system"
- increased regulation replaced role of extension serving public interests on rural issues
- after 10 years, fees were still inadequate to recover costs

## **Alternative Approaches to Extension**

### **Denmark (McLaughlin & Cormier 1990)**

#### **Background:**

- two levels of services:
  - 1) local advisors with specialties in various areas are employed by local "unions" and provide advice directly to farmers
  - 2) national advisors are employed jointly by national organizations and give advice to local advisors
- agricultural organizations are responsible for local program planning and implementation, although government sets overall rules and regulations
- farmers pay membership fees to agricultural organization that entitle them to use advisory services; membership fees vary among regions and on farm size
- public good services are available to all farmers whether paid members or not
- some services are cost recoverable
- government subsidises salaries for some advisors; support is decreasing; total funding was from three sources: state grants, 19%; membership fees, 12%; cost recoverable services, 69%

#### **Impacts:**

- none cited

### **Norway (Haug 1991)**

#### **Background:**

- services are a mix of public and private sector activities; extension is integrated with other tasks no matter which provider
- services fit into four groups
  - 1) conventional agricultural extension (provided by public agency)
  - 2) conventional and integrated agricultural development (provided by farmer organizations)
  - 3) farming systems research and extension (government supported private research and extension circles)
  - 4) commodity development and production systems (provided by animal husbandry organizations, banks and private companies)

### **Impacts:**

- farmer led research and extension seen as successful because of:
  - farmer-led structure gives responsibility to members to set priorities and make decisions
  - government-supported, fee-based private extension valued differently than free service so farmers are more apt to evaluate staff performance to ensure cost/benefit
  - on-farm, adaptive research focuses on local conditions
  - combination of adaptive research and extension lessens the gap between research and extension

### **Strategies for Decentralizing Extension Services**

- Rivera (1991, 1996) discusses three main ways governments worldwide have been decentralizing agricultural extension:
  - 1) focusing on the fiscal system and shifting costs from the public sector to some combination of public/private or the private sector (e.g., direct charge for products/services, farm organization levies through "cess" or parafiscal taxes)
  - 2) instituting structural reform to move from centralized government to other agencies (e.g., transfer control to other agencies, have dual control with government and agencies, privatize)
  - 3) redesigning program management by giving farmers responsibility for extension (on a continuum of being consulted, participating, making decisions and taking responsibility)
- the strategies are complimentary and "symbiotic"; to show how the three approaches of decentralized extension interrelate, Rivera (1996, p. 868.10) has developed Table 1
- the questions remain: who should be served? who will pay for the service? who will deliver the service?
- the responses are: every situation is different; various approaches should be considered (and perhaps mixed); socio-political and economic sustainability are important factors; and, extension systems must be flexible and adapt to changing policies, new technologies and farmer needs (Rivera 1991)



Table 1. Structural, financial and managerial strategies for decentralizing extension

Structural Strategies	Financial Strategies	Managerial Strategies
1. Deconcentrated	Public sector funding: funds dispensed to branch offices	Public sector delivery, with or without participatory involvement of farmers
2. Dual	Public/private joint funding: costs shared by provincial government and farmer associations	Public/private collaboration between government and farmer associations
3. Devolved	Public sector funding: inter-governmental transfers, with subnational government given authority to raise funds from other sources	Public sector delivery, with or without participatory involvement of farmers
4. Commercialized	Commercialized public sector: contractual agreements directly with farmers	Market-oriented public sector agency operating on farmer demand for service
5. Delegated	Public sector authority delegated to parastatal or private entity: government charges cess on commodities	Market-oriented service on demand via contractual arrangement
6. Privatized	Public sector authority delegated to parastatal or private entity: government charges cess on commodities [sic]	Market-oriented service on demand via contractual arrangement

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## **Literature Review for Agriculture and Rural Advisory Services Study**

### **Part 2 of 2**

## **Extension and Adult Education Theory, and Use of Technology**

prepared by Brita Ball

Rural Community Advisor, Simcoe, Ontario

### **Summary**

- learning theories suggest that adult educators, such as extension agents, should design programs using a variety of approaches to enhance learning; extension clientele and new extension agents prefer to learn by doing, seeing and/or discussing
- no significant difference has been found in learning results between traditional (classroom type) instruction and education/instruction using various technologies appropriate for distance education; these results may not be generalizable to extension education
- computer use by farmers is increasing, however
  - about half of commercial farmers have computers, fewer than 10% use bulletin board systems or Internet
  - outdated rural telephone lines, lack of service providers, long distance charges, and insufficient knowledge/training inhibit rural people's access to the Internet
  - over the next few years a maximum of 25-30% of farmers will be using Internet

- farmers using computers tend to be younger, and have higher education and larger operations than average
- Internet has potential as extension tool
  - farmers who use the Internet consider it and magazines to be their top two sources of information
  - this technology is most suited to large farm operations or those with off-farm income
  - current users want more education and training opportunities to be available through the Internet
  - the potential benefits of Internet are vast but the value is unknown
  - some farmers will find the Internet inappropriate for their learning needs

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### **Extension and Adult Education Theory**

- Extension education serves "people by teaching them how to think, not what to think." (Raudabaugh 1963, cited in Boone 1989, p. 7) A specific form of adult education, extension education is an active process that leads to the application of new behaviour, knowledge or skills.
  - The learning process has four phases - experience, observation and reflection, conceptualization and generalization, and active experimentation. Griffith (1994) suggests these phases are roughly parallel to the steps in the adoption/diffusion process in extension literature. The first four steps - awareness, interest, evaluation and trial - precede the decision to adopt or reject an innovation (Lamble 1984). Using these theories, extension agents designing programs should incorporate several principles of adult learning:
    1. building on the past experiences and subject knowledge that adults bring to programs encourages them to actively contribute to the learning process
    2. providing appropriate learning experiences enables participants to integrate their previous knowledge with the new information
    3. focusing discussion on actual situations rather than academic material encourages participants to think about how their learnings could be applied to their own situations
    4. having learners test out concepts or generalizations by simulation or real-life application helps them decide what follow-up actions are most appropriate
  - A survey of over 100 clients and new staff in North Carolina Co-operative Extension supports adult learning theory applied to extension. Richardson (1994) reported
    - 70% of clients preferred "doing" as the most appropriate single method of learning; 80% of new staff preferred this approach
    - in combination with other approaches to learning, 74% of clients included "doing" while 65% mentioned "seeing"; 100% of extension staff included "doing" in some combination, 96% preferred "seeing" and 74% included "discussing"
- Results suggest that adults participating in extension programs should be given the chance to experiment with or apply new skills or knowledge, observe the information in some form, and

have guided discussion about what they are learning. These three activities correspond to three of the four theoretical stages of learning.

## Use of Technology in Education/Instruction

- In reviewing ninety research reports, summaries and papers which were published from 1978 to 1995, Russell (1996) found
  - there was no significant difference between the results of traditional instruction and distance education (e.g., video tapes, video-conferencing, television, audio-tapes, audio-conferencing, interactive technologies, computer simulation, printed study material); comparisons in the various studies were of student achievement, academic performance, learning, knowledge and attitude
- Two reviews of research in educational technology reported that
  - "instructional media were not inherently 'better'" and "for every study that shows the new medium is better, another study shows the opposite"
  - "effective instructional design and techniques are the crucial elements in student achievement"

**Note:** This report did not provide comparisons between technology use and group instruction, like some extension programming, which is not the traditional classroom type. It also did not report on differences in skill development (vs. knowledge or attitude change) between learners in mediated instruction and those in traditional instruction, on the retention of what was learned, or on the efficiency of learning (re time and energy). A considerable amount of self-discipline is required for some approaches to learning.

## Use of Information Technology in Rural Areas

- A study by Howard, Fox and Turvey (1996) about the economic benefits of new information technology use in the agricultural industry found
    - farmers get their information from a wide range of sources
    - younger farmers who have more education and manage larger operations are more likely to adopt computers
    - information can be a public good but it may also be used commercially and competitively
- The researchers surveyed over 500 commercial farmers across Canada and report that
- about 50% of them have computers; only half acquired them during the last three years
  - fewer than 7% of farmers use bulletin board systems (BBS) or satellite information systems (SIS); 9% use Internet; attrition is high with 4% no longer using BBS and 5% no longer using Internet
  - almost 90% of farmers have video cassette recorders (VCRs); however, less than 3% of those used VCRs for educational videos
  - 60-70% were willing to pay so they could electronically communicate with bankers, accountants, suppliers, etc.

Interviews with agribusiness firms and governments showed



- many firms used computers for accounting, inventory and in-house email; most companies are switching to email with Internet links
- many firms have Web Sites or will be developing them; the net value of a Web Site is unknown

The researchers concluded that

- farm computer use increases with the size and complexity of an operation and with producer education levels
- there are extensive potential benefits from the Internet but the possible value of this technology is unknown
- "Government's role as an 'honest broker' of information will likely continue regardless of the technology of the information systems."
- "User fees for government supplied information is problematic. Once data is screened and edited into useable information, it is non-rival and non-excludable in consumption; i.e., the main characteristics of a public good."
- Researchers at the University of Guelph surveyed rural Internet users to determine the impact of Internet (Mayhew and Richardson 1996, Truelove 1996). They found
  - farmers valued the information they are able to access from the Internet, and use Internet mostly for business purposes
  - farmers identified Internet and magazines as their top two sources of agricultural information; the longer they used the technology, the more likely they were to rely on it as a primary source of information
  - lack of knowledge and training, long distance charges and lack of service providers were the greatest obstacles to rural residents getting "on-line"
- Dr. D. Richardson, University of Guelph, suggests that
  - over the next couple of years a maximum of 25-30% of farmers will be using the Internet
  - Internet as an extension tool is most appropriate for larger operations and hobby farms (with off-farm income); not all farmers will find this approach to extension suitable
  - there are many different ways Internet can be used for rural extension
  - over 30,000 rural telephone users are still serviced by two or four party lines that are not compatible with equipment such as fax machines and computer modems; many rural telephone systems are analogue switches which limit modem speed to 9600 baud or less; Bell Canada intends to upgrade most of rural Ontario over the next four years
  - Web Sites serving rural customers should be designed with few graphics so "text only" browsers and those with 2400 baud modems are able to read web site data
  - all major banks are increasing on-line services for most transactions and reducing the number of rural branches
  - the demand from current Internet users is for Internet based education and training; this provides much opportunity (e.g., learners could pay for password that would give them access to specific courses)

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